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Examiner Initiated Interview Summary

Paper No. 20070913

To calculate "atom percent"

assume 1000 gm sample into which is added 5% Cr₂O₃ (i.e. 50gm)

step 1 - determine MW where Cr₂O₃ MW= 152 ZnCr₂O₄ MW 233.4

step 2- determine moles

$$50/152 = 0.33 \text{ mol Cr}_2\text{O}_3$$

$$1000/233.4 = 4.28 \text{ mol ZnCr}_2\text{O}_4$$

step 3- determine atom equivalent of Cr in mol of components

0.33 mol Cr₂O₃ is equivalent to 2 atoms Cr times 0.33 then = 0.66 atom equivalents Cr

4.28 mol ZnCr₂O₄ is equiv to 2 Cr times 4.28 then = 8.56 atom equivalentst Cr

step 4- determine atom percent Cr in 1050gms

$$[0.66 / (8.56 + 0.66)] = 92.8 \text{ atom percent Cr}$$

However, Applicants have not provided the atom percent calculatiions of the recited claims in reference to the working examples.